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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/553,303

10/14/2005

Petra Cirpus

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EXAMINER

BAGGOT, BRENDAN O

ART UNIT

PAPER NUMBER

1638

MAIL DATE

DELIVERY MODE

07/26/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/553,303	Applicant(s) CIRPUS ET AL.	
	Examiner Brendan O. Baggot	Art Unit 1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11 and 12 is/are pending in the application.
- 4a) Of the above claim(s) 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>See Office action</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Restriction / Election

1. Applicant timely traversed the restriction (election) requirement in the reply filed on 7/11/07.
2. Claim 11 and SEQ ID NOs: other than SEQ ID NO: 1 encoding SEQ ID NO: 2 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Claim 1-9, 12 examined in the instant application.
3. Applicant's election with traverse of Group I, claims 1-9, 12 in the reply filed on 7/11/07 is acknowledged. The traversal is primarily on the ground(s) "that the invention relates to the use of genes encoding oil synthesis enhancing proteins (OEP)", "because the same art relevant to a method for increasing oil production in a plant or parts thereof by transgenically expressing an OEP would be relevant to a method of extracting the oil from such a transgenic plant, there would be no undue burden", "restriction to a single gene sequence is improper", and "the international examiner found unity of invention."

This is not found persuasive because it is the province and duty of the Examiner to say what the technical feature is; Applicant's characterization of what the technical feature is lacks probity; while a search of the prior art for one group may overlap with that of another group, they are not co-extensive of each other; restriction to a single gene sequence is indeed proper and any contrary assertion lacks merit

(<http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/sequence02212007.pdf>);

Art Unit: 1638

the determination of a foreign examiner acting under different laws with different legal standards is irrelevant; the Lassner reference cited under 102(b) below is further evidence of the lack of any special technical feature.

4. The requirement is still deemed proper and is therefore made FINAL.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Sequence Listing

6. Applicant's computer readable format sequence listing has been entered.

Specification

7. The abstract of the disclosure is objected to because the abstract contains legalese: e.g., "said transgenic plants". Correction is required. See M.P.E.P. § 608.01(b).

Information Disclosure Statement

8. An initialed and dated copy of Applicant's IDS filed 10/14/05, is attached to the instant Office Action. A complete reference CE was not provided and there CE has been lined through.

Claim Objections

9. Claims 2, 5, 6, 8, and 12 are objected to because of the following informalities: the claims are drawn to non-elected sequences. Appropriate correction is required.

Claim Rejections - 35 U.S.C. §102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

35 U.S.C. §102.

10. Claims 1-9 and 12 drawn to SEQ ID NO: 1 are rejected under 35 U.S.C. 102(b) as being anticipated by Lassner, (Lassner et al, (2000) GenEmbl Database. Accession No. BD224848, WO 2000/18889, 6 April 2000, SEQ ID NO: 217, SEQ ID NO: 225).

Lassner discloses a method of increasing the total oil content in a plant organism or a tissue, organ, part, cell or propagation material thereof, comprising a) transgenically expressing (Lassner @ Example 8; page 37-78) an oil synthesis enhancing protein in a starting plant organism or in a starting tissue, organ, part, cell or propagation material thereof so that a transgenic plant organism or a transgenic tissue, organ, part, cell or propagation material thereof is obtained, and b) selecting said transgenic plant organism or said transgenic tissue, organ, part, cell or propagation material thereof in

which the total oil content is increased by contrasting to or comparing with in said starting plant organism or in a said starting tissue, organ, part, cell or propagation material thereof, wherein the plant is an oil crop, wherein the total oil content in the seed of a said plant organism is increased, wherein the oil synthesis enhancing protein is encoded by a nucleic acid sequence selected from the group consisting of: a) a nucleic acid sequence comprising a nucleotide sequence which is at least 100% identical to the nucleic acid sequence of SEQ ID NO : 1 (Lassner's SEQ ID NO: 225, 217, page 66); b) a nucleic acid sequence comprising a fragment of at least 30 nucleotides of a nucleic acid sequence comprising the nucleotide sequence of SEQ ID NO :1; c) a nucleic acid sequence which encodes a polypeptide comprising an amino acid sequence at least about 60% identical to the amino acid sequence of SEQ ID NO : 2 and d) a nucleic acid sequence which encodes a fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO : 2 or wherein the fragment comprises at least 10 contiguous amino acid residues of the amino acid sequence of SEQ ID NO : 2, wherein the nucleic acid sequence which encodes the oil synthesis enhancing protein comprising an amino acid sequence of SEQ ID NO: 2.

Lassner discloses an expression cassette comprising, in combination with a regulatory sequence a nucleic acid sequence selected from the group consisting of: a) a nucleic acid sequence comprising a nucleotide sequence which is at least 60% identical to the nucleotide sequence of SEQ ID NO : 1(Lassner's SEQ ID NO: 225, 217, page 66), b) a nucleic acid sequence comprising a fragment of at least 30 nucleotides of a nucleic acid sequence comprising the nucleotide sequence of SEQ ID NO : 1, c) a

nucleic acid sequence which encodes a polypeptide comprising an amino acid sequence at least about 60% identical to the amino acid sequence of SEQ ID NO : 2, or d) a nucleic acid sequence which encodes a fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO : 2 wherein the fragment comprises at least 10 contiguous amino acid residues of the amino acid sequence of SEQ ID NO: 2 wherein said regulatory sequence is capable of mediating expression of said nucleic acid sequence in a plant, wherein said nucleic acid sequence encodes a polypeptide comprising the amino acid sequence set forth in SEQ ID NO : 2, wherein the regulator5, sequence comprises a seed-specific promoter.

Lassner discloses a genetically modified plant organism or tissue, organ, part, cell or propagation material thereof, comprising a polypeptide as defined in SEQ ID NO: 2 or an expression cassette as claimed in claim 5, wherein the plant organism is selected from the group of the oil crops consisting of *Borvago officinalis*, *Brassica campestris*, *Brassica napus*, *Brassica rapa* (page 15, lines 2-7), *Cannabis sativa*, *Carthamus tinctorius*, *Cocos nucifera*, *Crambe abyssinica*, *Cuphea species*, *Elaeis guinensis*, *Elaeis oleifera*, *Glycine max* (page 2, line 11), *Gossypium hirsutum*, *Gossypium barbadense*, *Gossypium herbaceum*, *Helianthus annuus*, *Linum usitatissimum*, *Oenothera biennis*, *Olea europaea*, *Oryza sativa*, *Ricinus communis*, *Sesamum indicum*, *Triticum species*, *Zea mays*(page 2, line 11), walnut and almond (page 15, lines 2-7). Thus, the reference discloses all the limitations of the Claimed invention.

Claim Rejections - 35 U.S.C. §103, lack of unobviousness

Art Unit: 1638

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

35 U.S.C. §103(a).

The *Graham* court set forth the factual inquiries that are applied for determining obviousness under 35 U.S.C. 103(a):

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966).

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 1-9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lassner, (Lassner et al, (2000) GenEmbl Database. Accession No. BD224848, WO 2000/18889, 6 April 2000, SEQ ID NO: 217, SEQ ID NO: 225).

Lassner's teachings have been discussed supra.

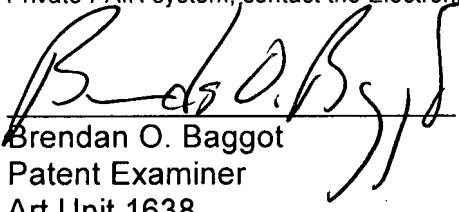
It would have been obvious at the time of invention to modify the invention of Lassner to include the plant species of claim 9 with the OEPs of Lassner. One of ordinary skill in the art would have been motivated by the knowledge common in the art that acyltransferases can increase oil content in plants, and that one would have had a reasonable expectation of success of increasing oil content in plants using Lassner's SEQ ID NO: 221 and SEQ ID NO: 225.

12. All Claims are rejected.

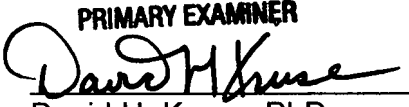
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brendan O. Baggot whose telephone number is 571/272-5265. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on 571/272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9195 (toll-free).



Brendan O. Baggot
Patent Examiner
Art Unit 1638

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